Medical Human Embryology  
Course Syllabus  
Spring 2018

Course Number:  GMS 5604
Credit Hours:  Three (3) credit hours
Course Format:  This online course is tailored for asynchronous distance learners.

Course Description:  
This Medical Human Embryology course is designed to provide the understanding of the anatomical relationships of major structures within the thorax, abdomen, head/neck, and back/limbs regions of the body. Congenital malformations associated with given organ systems will also be discussed.

Prerequisites:  
This advanced medical anatomy course will require a strong science foundation of five (5) full-semester science courses related to Biology, Chemistry, and/or Physics. Students are encouraged to have already taken GMS 5605 Online Medical Human Anatomy.

Contacts:  
If you have questions about the course or its content contact the Course Coordinator, Dr. Kyle E. Rarey, Professor, Department of Anatomy & Cell Biology.

Schedule:  The course is offered every semester, including the summer.

Time Commitment:  This course will require about 150 hours of time, or about 10 hours per week, allocated between different course activities (i.e., lectures, quizzes, chat sessions, concept maps, etc.).

Course Goals:  
The goals of this online course are to:
1. identify the major developmental events associated with each organ system of the human body
2. discuss mechanisms that lead to malformations associated with each organ system.

Learning Outcomes:  
At the end of the course, students will be able to:
1. describe the sequence of events leading in implantation and organogenesis.
2. describe developmental processes associated with each organ system
3. list and describe the major malformations associated with each organ system.

Learning Resources:  
1. Unit overviews, recorded lectures with PowerPoint presentations, and other multimedia resources will be provided on the course web site.
2. Required resources:
   a. Sadler, TW, Langman’s Medical Embryology, 12th ed, Lippincott Williams & Wilkins
   b. Rarey, K.E., Romrell, LJ, Clinical Human Embryology, Online DxR.
Use this link and password to purchase the software online with a credit card:

https://www.dxrgroup.com/product/cheufl/
Password: betime8

Contact Person: Diane Tennyson, Vice President/Administration & Sales, DxR Development Group, Inc., 1840 Innovation Drive, Suite 112, Carbondale, IL 62903, P: 618-453-1140, F: 618-453-5309, diane.tennyson@dxrgroup.com

The information in the required text and workbook are coordinated with online lecture materials.

3. Practice on-line quizzes that consist of multiple-choice questions will be available for each module of study.
4. Clinical exercises in anatomical injuries, musculoskeletal disorders, pulmonary diseases, gastrointestinal abnormalities, and renal pathophysiology will be used to promote critical thinking.

Course Participation
Points may be earned per module by actively posting multiple choice questions (MCQs) at the discussion site and the assignment site. Each MCQ must have the rationales for the correct answers and rationales for the incorrect choices. Each question with rationales will count as 2 points. One can submit a maximum of three questions per week. Questions should be published before the weekly due date. Late submissions will be valued less. Total possible participation points = 96 (3MCQs × 2pts × 16wks)

Examinations and Grading:
One examination consisting of 50 multiple-choice questions (each valued of 2 points) will be given for each module. Each exam will be worth 100 points and will be timed. Students will have to take all examinations at a computer with a web camera. A proctor will remotely monitor each student during the exams. See the ProctorU Student FAQs for more information.

4 module examinations = Total 400 possible points
Participation points from MCQs = Total 96 possible points

The final grade will be calculated as follows:
Scores on 4 module examinations (a total of 400 points)
+ Scores on submitted multiple-choice questions (a total of 96 points)
= Total points possible: 496 points.

In summary, the final grade will be the total number of points earned/496 (%). The final grade is broken down as follows:
- Module Exams: 80%
- Submitted Multiple-Choice Questions: 20%
Grading Scale (Correct out of a possible 496 points)

A  =  93-100%  C+  =  77-79%
A- =  90-92%   C    =  73-76%
B+ =  87-89%   C-   =  70-72%
B  =  83-86%   D+   =  67-69%
B- =  80-82%   D    =  63-66%
      D-   =  59-62%
      E    =  < 59%

I = An incomplete grade will be given if a student fails to complete the course as scheduled. For more information about UF grading policies see:

Make-Up Exam Policy:
Students are required to take all four modular examinations. Make-up exams are given only under special circumstances. If the student is unable to take a scheduled modular examination, the course director must be notified before the examination. In addition, a written letter of explanation, requesting that the absence from the exam be excused, must be presented before the exam or immediately afterwards. An excused absence is allowable when: 1) the student is hospitalized and/or has been advised by a licensed medical practitioner or hospital not to attend the exam, 2) if there is a documented death of an immediate family member, or 3) the examination falls on a religious holiday. All excused absences will be considered on an individual basis by the course director. With the exception of highly extenuating circumstances, failure to follow the prescribed procedures will result in a grade of zero for that exam. Further information about the policies for attendance and religious holidays for The University of Florida can be found at:

Assignments:
The course is divided into 4 modules. Each module consists of selected chapters with specific reading assignments. For each module students will: (1) review the learning objectives and corresponding lecture notes; (2) read and complete the assignments as given; (3) complete interactive exercises associated with each module; (4) take online practice examinations; and (5) take the scheduled, online module examination.

Course Schedule:

<table>
<thead>
<tr>
<th>Module</th>
<th>Dates</th>
<th>Activity</th>
<th>Reading Assignment</th>
<th>Learning Opportunities</th>
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</table>
| 1-1    | Jan 8 – Jan 12 | Online Lecture: Fertilization & Implantation  
Online Lecture: Bilaminar & Trilaminar Germ Disc  
Post-lecture Quiz | Sadler, Chapters 3 & 4 | MCQs Due, Friday, 12 Noon |
| 1-2    | Jan 15 – Jan 19 | Online Lecture: Differentiation of the Trilaminar Germ Disc  
Online Lecture: Anomalies of the Trilaminar Germ Disc  
Post-lecture Quiz | Sadler, Chapters 5 & 6 | MCQs Due, Friday, 12 Noon |
| 1-3    | Jan 22 – Jan 27 | Online Lecture: Fetal Development  
Online Lecture: Placenta  
Post-lecture Quiz | Sadler, Chapter 8 | MCQs Due, Friday, 12 Noon |
| 1-4    | Jan 29 – Feb 2 | Online Lecture: Development of Skeleton  
Online Lecture: Anomalies of Skeletal Development | Sadler, Chapter 10 | MCQs Due, Friday, 12 Noon |

*all times are eastern standard
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| 1-5    | Feb 5 – Feb 9 | Online Lecture: Muscle & Dermatome Development  
Post-lecture Quiz | Sadler, Chapters 11 & 12  
Post-lecture Quiz | MCQs Due, Friday, 12 Noon |

**Module 1 Examination (online) – Opens Friday, February 9**

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| 2-1    | Feb 12 – Feb 16 | Online Lecture: Head & Neck: Pharyngeal Arches and Clefts  
Online Lecture: Head & Neck: Pharyngeal Pouches  
Post-lecture Quiz | Sadler, Chapter 17  
Post-lecture Quiz | MCQs Due, Friday, 12 Noon |
| 2-2    | Feb 19 – Feb 23 | Online Lecture: Head & Neck: Face and Palate  
Online Lecture: Brain & Cranial Nerves  
Post-lecture Quiz | Sadler, Chapters 17 & 18  
1  
Post-lecture Quiz | MCQs Due, Friday, 12 Noon |
| 2-3    | Feb 26 – Mar 2 | Online Lecture: Spinal Cord & Spinal Nerves  
Online Lecture: Autonomic Nervous System  
Post-lecture Quiz | Sadler, Chapter 18  
Post-lecture Quiz | MCQs Due, Friday, 12 Noon |
| 2-4    | Mar 5 – Mar 9 | Online Lecture: Development of the Eye  
Online Lecture: Development of the Ear  
Post-lecture Quiz | Sadler, Chapters 19 & 20  
Post-lecture Quiz | MCQs Due, Friday, 12 Noon |

**Module 2 Examination (online) – Opens Friday, March 9**

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| 3-1    | Mar 12 – Mar 16 | Online Lecture: Development of the Thoracic Cavity  
Online Lecture: Development of the Lungs  
Post-lecture Quiz | Sadler, Chapter 14  
Post-lecture Quiz | MCQs Due, Friday, 12 Noon |
| 3-2    | Mar 19 – Mar 23 | Online Lecture: Anomalies of the Respiratory System  
Online Lecture: Development of the Heart  
Post-lecture Quiz | Sadler, Chapters 13 & 14  
Post-lecture Quiz | MCQs Due, Friday, 12 Noon |
| 3-3    | Mar 26 – Mar 30 | Online Lecture: Development of the Arteries  
Online Lecture: Development of the Veins & Lymphatics  
Post-lecture Quiz | Sadler, Chapter 13  
Post-lecture Quiz | MCQs Due, Friday, 12 Noon |
| 3-4    | April 2 – April 6 | Online Lecture: Development of the GI System  
Online Lecture: Anomalies of the Digestive System  
Post-lecture Quiz | Sadler, Chapter 15  
Post-lecture Quiz | MCQs Due, Friday, 12 Noon |

**Module 3 Examination (online) – Opens Friday, April 6**

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<tr>
<th>Module</th>
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<th>Activity</th>
<th>Reading Assignment</th>
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| 4-1    | Apr 9 – Apr 13 | Online Lecture: Development of the Urinary System  
Online Lecture: Anomalies of the Urinary System  
Post-lecture Quiz | Sadler, Chapter 16  
Post-lecture Quiz | MCQs Due, Friday, 12 Noon |
| 4-2    | Apr 16 – Apr 20 | Online Lecture: Development of the Male Reproductive System  
Online Lecture: Anomalies of the Male Reproductive System  
Post-lecture Quiz | Sadler, Chapter 16  
Post-lecture Quiz | MCQs Due, Friday, 12 Noon |
| 4-3 | Apr 23 – Apr 27 | Online Lecture: Development of the Female Reproductive System  
Online Lecture: Anomalies of the Female Reproductive System  
Post-lecture Quiz | Sadler, Chapter 16 | MCQs Due, Friday, 12 Noon |
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<td><strong>Module 4 Examination (online) – Opens Friday, April 27</strong></td>
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**Attendance:**
Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found in the online catalog at: [https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx](https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx). A student’s overall success, however, is based upon following the course schedule for learning the assigned readings and practicing the recommended exercises. Students are strongly encouraged to develop self-discipline to complete all text readings and online exercises, including the practice examinations.

**Academic Integrity:**
Please review the University’s complete policy regarding academic dishonesty, found online in the student handbook: [http://www.dso.ufl.edu/judicial/pdffiles/handbook2003.pdf](http://www.dso.ufl.edu/judicial/pdffiles/handbook2003.pdf)

Students are expected to abide by the University’s Academic Honesty Policy, and to adhere to the following pledge:

“We, the member of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

According to the UF Student Guide, Academic dishonesty includes the following:

- Cheating - copying another’s work for academic gain.
- Plagiarism - representing another’s work as your own.
- Bribery - offering, giving, soliciting, or receiving goods or services of value for academic gain.
- Misrepresentation - altering facts (e.g., signing an absent classmate’s name to an attendance sheet).
- Conspiracy - planning with others to commit academic dishonesty.
- Fabrication - making up information to avoid punishment or other difficulty.

**Copyright Information:**
Please also review the use of copyrighted materials, which can be found on the Health Science Center Library’s web page: [http://www.library.health.ufl.edu/services/copyright.htm](http://www.library.health.ufl.edu/services/copyright.htm)

**Accommodation Policy:**
Students requesting classroom accommodation must first register with the Dean of Students’ office, 202 Peabody Hall, 392-1261. The DSO will provide documentation to the student who must then provide this documentation to the instructor.
Online Course Evaluation Process:
Students are expected to provide feedback on the quality of instruction in this course based on 10 criteria. These evaluations are conducted online at https://evaluations.ufl.edu. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at https://evaluations.ufl.edu/results.